CLAIMS

Therefore, having thus described the invention, at least the following is claimed:

1. A product comprising:

at least one captive rivet, the captive rivet comprising at least one capture region disposed on a lower portion of a captive rivet shank;

a first material secured to the captive rivet, wherein a deformed portion of the first material is deformed into the capture region.

2. The product of claim 2, wherein a captive rivet hammer causes a deformation of a portion of the first material such that the deformed portion of the first material is forced into the capture region, thereby securing the captive rivet to the first material.

3. The product of claim 1, further comprising a second material, wherein the second material is secured to the first material by an upper portion of the captive rivet shank that has been deformed.

4. The product of claim 1, further comprising a plurality of materials, wherein the plurality of materials are secured to the first material by an upper portion of the captive rivet shank that has been deformed.

5. The product of claim 1, further comprising a plurality of captive rivets secured to the first material.

6. The product of claim 1, further comprising at least a second material, wherein the second material is secured to the first material by a plurality of captive rivets, each captive rivet having an upper portion of their captive rivet shank that has been deformed.

7. The product of claim 1, further comprising a second material, wherein the second material is secured between the first material and a captive rivet head of the captive rivet.

8. A riveting system, comprising:

a captive rivet anvil configured to support a captive rivet, the captive rivet comprising at least one capture region disposed on a lower portion of a captive rivet shank; and

a captive rivet hammer configured to deform a portion of the material such that a deformed portion of the material is forced into the capture region, thereby securing the captive rivet to the material.

9. The system of claim 8, further comprising:

a first member coupled to the captive rivet anvil; and

a second member coupled to the first member and the captive rivet hammer, wherein a manual force exerted on the first member and the second member is converted into a mechanical force exerted on the material that deforms the portion of the material.

10. The system of claim 8, further comprising:

a captive rivet anvil controller coupled to the captive rivet anvil;

a captive rivet hammer controller coupled to the captive rivet hammer; and

a processing system configured to communicate a signal wherein a force is exerted on the captive rivet that deforms the portion of the material.

11. The system of claim 10, wherein the captive rivet anvil controller comprises a mechanical actuator, such that the communicated signal causes the mechanical actuator to exert the force on the captive rivet anvil.

12. The system of claim 10, wherein the captive rivet hammer controller comprises a mechanical actuator, such that the communicated signal causes the mechanical actuator to exert the force on the captive rivet hammer.

13. The system of claim 10, wherein the processing system comprises:

a memory;

captive rivet logic residing in the memory; and

a processor coupled to the memory such that when the captive rivet logic is executed by the processor, the processing system communicates the signal.

14. The system of claim 8, further comprising a second hammer, the second hammer configured to exert a force deforming an upper portion of the captive rivet shank such that the deformed upper portion of the captive rivet shank rivets the material to at least one second material.

15. A captive rivet comprising:

a captive rivet head;

a captive rivet shank coupled to the captive rivet head; and

at least one capture region disposed on a lower portion of the captive rivet shank.

16. The captive rivet of claim 15, wherein an exerted force causes a captive rivet hammer to deform a portion of material such that a deformed portion of the material is forced into the capture region, thereby securing the captive rivet to the material.

17. The captive rivet of claim 15, further comprising a plurality of capture regions disposed on the captive rivet shank.

18. The captive rivet of claim 15, wherein the capture region comprises a capture channel.

19. The captive rivet of claim 15, wherein a second hammer deforms an upper portion of the captive rivet shank such that the deformed upper portion of the captive rivet shank rivets the material to at least one second material.

20. The captive rivet of claim 15, further comprising:

a rivet member;

a shaft residing on the rivet member and extending through a hole in the captive rivet head; and

a protrusion residing on the rivet member,

wherein retraction of the shaft through the hole causes the protrusion to deform an upper portion of the captive rivet shank such that the deformed upper portion of the captive rivet shank rivets the material to at least one second material.

21. A method for securing a captive rivet to a material comprising:

inserting a captive rivet shank through a hole in the material;

supporting a captive rivet head with a captive rivet anvil; and

exerting a force on a portion of the material such that a captive rivet hammer deforms a portion of the material, wherein a deformed portion of the material is forced into a capture region residing on the captive rivet shank, thereby securing the captive rivet to the material.

22. The method of claim 21, further comprising exerting the force with the captive river hammer.

23. The method of claim 21, further comprising exerting the force with the captive river anvil.

24. The method of claim 21, further comprising:

communicating a signal from a processing system to a captive rivet controller; and

exerting the force from a mechanical actuator in response to the communicated signal.

25. The method of claim 24, further comprising:

communicating the signal from the processing system to a captive rivet anvil controller; and

actuating the mechanical actuator to exert a mechanical force onto the captive rivet anvil in response to the communicated signal.

26. The method of claim 24, further comprising:

communicating the signal from the processing system to a captive rivet hammer controller; and

actuating the mechanical actuator to exert a mechanical force onto the captive rivet hammer in response to the communicated signal.

27. The method of claim 21, further comprising manually exerting a second force onto a first member and a second member such that the exerted second force is converted by the first member and the second member into the exerted force on the portion of the material.

28. A system for securing a captive rivet to a material, comprising:

means for supporting a captive rivet head with a captive rivet anvil; and

means for exerting a force on a portion of the material such that a captive rivet hammer deforms a portion of the material such that a deformed portion of the material is forced into a capture region residing on a captive rivet shank, thereby securing the captive rivet to the material.

29. The system of claim 28, further comprising means for converting a manual force exerted on a first member and a second member into the exerted force on the portion of the material.

30. The system of claim 28, further comprising

means for communicating a signal to a captive rivet anvil controller; and

means for actuating the captive rivet anvil controller to generate a force onto a captive rivet anvil in response to the communicated signal.

31. The system of claim 28, further comprising:

means for communicating the signal to a captive rivet hammer controller; and

means for actuating the captive rivet hammer controller to generate a force onto the captive rivet hammer in response to the communicated signal.

32. A computer-readable medium having a program for securing a captive rivet to a material, the program comprising logic configured to generate a signal that is communicated to a captive rivet controller that actuates a mechanical controller to deform a portion of the material such that a deformed portion of the material is forced into a capture region residing on a shank of the captive rivet, thereby securing the captive rivet to the material.

33. The computer-readable medium of claim 32, wherein the generated signal is communicated to a captive rivet anvil controller such that the mechanical controller exerts a force onto a captive rivet anvil in response to the communicated signal.

34. The computer-readable medium of claim 32, wherein the generated signal is communicated to a captive rivet hammer controller such that the mechanical controller exerts a force onto a captive rivet hammer in response to the communicated signal.